

Applications of Python:-

- * web applications
- * mobile apps
- * desktop apps
- * Gaming
- * IOT
- * cyber security
- * data science AI
- * data analysis
- * automation.
- * Data visualization.

Comments in Python:-

A comment is a line in the program that is not executed by Python. It is used to explain code, improve readability.

Types of comments in Python:-

1. Single-line comment

starts with the # symbol

ex:- `x = 10 # Assigning value to variable.`

2. Multi-line comment

we can use triple quotes. `''' '''` or `""" """`

ex: `"name"`

Why use comments?

- * to explain the purpose of code
- * to make the program easier to understand
- * useful for debugging

Keywords in Python:-

Keywords are reserved words in Python that have a special meaning & role in the language.

- * They cannot be used as variable names, function names.

List of keywords:-

false	await	else	import	pass
None	break	except	in	raise
True	class	finally	is	return
and	continue	for	lambda	try
as	def	from	nonlocal	while
assert	del	global	not	with
async	elif	if	or	yield

Why keywords are important?

- they form the syntax rules of Python
- Help Python understand what the programmer wants
- essential for writing programs correctly.

Input & Output functions:-

Input function:- Note:- data take from input() is always string type.
input() is used to take input from the user.

Syntax:- `name = input("message")`

If you want numbers - `age = int(input("Enter age:"))`

Output function:

`print()` is used to display output on the screen.

Syntax:- `print("Hello")` , `print(x, y)` $x=10$, $y=20$

`print("my name is", name, "and my age is", age)`

Formatting output:-

using `format()`:-

`print("my name is {} and my age is {}".format(name, age))`

using f-string:-

`print(f"my name is {name} and my age is {age}")`